

## REMARKS

Reconsideration is respectfully solicited.

New Claim 40 finds support at page 15, 13 lines from the end; it recites a temperature range for the heat-pressing step. Amendments to Claim 18 serve to delete certain repetition of phrases; moreover, reference to a silane coupler as a hardener is deleted. Claims 24-39 are amended to be dependent on claim 18 which should be allowed for the reasons explained herein. Accordingly, these dependent claims 24-39 and 40 should also be allowed.

In applicants' view, none of the applied art [or concurrently cited art] provides the written description required to constitute an anticipatory reference. Please see section 2131 of the MANUAL OF PATENT EXAMINING PROCEDURE. Therein the MPEP encapsulates the law with respect to 'anticipation' case precedent. The unitary reference applied as an anticipation must provide written description of each and every element of the claim under scrutiny.

### In the Present Application:

A photo catalyst layer/adhesive layer/base film is directly laminated, by heat-pressing, onto a metal plate or a resin substrate to form an integral laminate. Specifically, 1) it is the metallic plate or resin substrate on which the photocatalyst-supporting film is laminated, and 2) the supporting film is heat-pressed onto the plate or substrate to form an integral laminate. Neither 1) nor 2) above is disclosed or even suggested in Kimura.

The result of applicants' method, involving the method items 1) and 2), includes superior effects as described in, for example, page 2, last paragraph, page 3, paragraphs 1-3, page 16, lines 11-16, which recites "in the present invention, heating and pressing are employed for the

laminating process, which allows to establish firm sticking of the photocatalyst layer to the adhesive layer and to obtain better durability, adherence and anti-exfoliation property than those before subjecting them to heating and pressing process". Also please see page 38 of the specification. They are not described by, nor suggested, by the prior art.

### The Rejection(s)

Applicants respectfully traverse the rejection of claims of the instant patent application over WO97/00314 [based on the description of U.S. 6228480], under 35 U.S.C. 102(b). The Kimura U.S. counterpart of WO97/00314 does not provide written description of each and every element of the rejected application claims. Kimura does not describe a laminate formed by heat-pressing. Please see MPEP Section 2131.

### WO 97/00134 (refer to Example 73):

Photo catalyst layer/adhesive layer/support/adhesive (i.e., sticker) / detachable PP film is formed. When used, the PP film is peeled off; and the remaining attached to a metal plate.

Please see the enclosed diagrams which illustrate the differences between the present invention and Kimura reference. The schematic drawings were provided by applicants' Japanese representatives.

Considering the Examiner's rejection of claims 18 under 35 U.S.C. 102(b) as being anticipated by W097/00134, it is to be noted that claim 18 of the present invention includes the limitations to the effect that the method comprises the step of:

“(c) heat-pressing the photocatalyst-supporting film onto a surface of a metallic plate or a resin substrate to form an integral laminate.”

The Examiner asserts that Kimura ‘480 discloses a photocatalyst-carrying structure comprising a photocatalyst film laminated onto a metallic substrate and *lamination involves heat and pressing*. The Examiner cited column 15, lines 44-46 and column 37, lines 12-15 of Kimura as the support for the assertion.

However, the description at column 15, lines 44-46 of Kimura, describes

“As a method to provide a sticker and a detachable film onto a photocatalyst-carrying film, a method to firstly coat a sticker in solution to the reverse side of the film by means of gravure printing and then dry and roll the coated-film together with detachable polypropylene film while laminating it therewith is and may be preferably employed”.

Accordingly, it is obvious that this section in Kimura describes the preparation of a tape (of a photocatalyst-carrying film) provided with a detachable film via a sticker. The purpose of this is to make the tape handy and usable by simply peeling off the detachable film. For this purpose, please note that “heating” in the lamination step of Kimura is not generally conceivable by a skilled person in the field because if the tape is heated while being laminating, the nature of the adhesive (sticker) may be changed and causes problems, such as difficulties in separating the detachable film.

Accordingly, it is clear that the present invention is not the same as Kimura, and Kimura does not teach each and every element of Claim 18. Moreover, Kimura does not describe or suggest the temperature range of heat pressing which is recited in new Claim 40. Withdrawal of the rejection under 35 U.S.C. 102(b) over Kimura is respectfully solicited.

Also, the Examiner asserts that, column 37, lines 12-15 of Kimura, describes that “The film applied with the sticker was winded while laminating the film with polyethylene film P-2161, manufactured by Toyobo Co., Ltd. for drying and winding at the drying zone in the gravure printer, to thereby providing a sticking film (emphasis added).”

Again, it is obvious that this section of Kimura, relied upon by the U.S. PTO, describes the preparation of a tape provided with a detachable film via a sticker. The purpose of this is to make the tape handy and usable by simply peeling off the detachable film. For this purpose, “heating” in the lamination step is not generally conceivable by a skilled person in the field because of the reasons mentioned above.

The U.S. PTO Examiner's attention is respectfully directed to Examples 86-88 of '480. These Examples recite coating a metal substrate and drying; thereafter another layer is applied to the adhesive which is characterized as photocatalyst layer. This is not the method of the claims at issue in this application.

Moreover, Kimura does not describe the structural result which is embodied by the Figure of the application; the structure of the Figure in the instantly rejected application is the result of the method claims of the instant application, including Claims 18 and 23 et seq including new Claim 40, which recites heat pressing at 60-200°C. In summary, the reference does not describe laminating in accordance with steps (a)-(c) of claim 18 or the photocatalyst-supporting film and the laminating by heat-pressing of claim 23 [and the claims dependent thereon]; use of the further adhesive layer of claim 24 [and the claims dependent thereon]; the lamination of 2 or more resin films as in claim 25 [and the claims dependent thereon] or the adhesive layer of claim claims 28 [and the claims dependent thereon]. Thus, the reference fails to describe the subject matter of the claims in this application, and thus fails to anticipate the claims. Moreover, the reference fails,

under 35 U.S. C. 103 to render obvious the subject matter herein. Please see the specification at page 16 line 11-16 and at page 17 lines 14-26. At page 16 it is stated,

"in the present invention, heating and pressing are employed for the laminating process, which allows .. firm sticking of the photocatalyst layer to the adhesive layer and..better durability, adherence and anti-exfoliation..."

At page 17 it is stated,

"Accordingly, the present invention has ...improvement in ...homogeneity of film thickness, which are facilitated by ...faster formation of a photocatalyst layer [compared] to the..method to coating and drying...according to common dipping method or spraying method...Further the metallic plates ...wide application..since thos structures can be prepared into various shapes by molding metallic plates and resin substrates by press processing following to lamination with the photo catalyst-supporting film and subsequent cutting."

In applicants' view, none of the advantages described in the application under examination are described or suggested by the applied references. Accordingly, withdrawal of the reference rejections is respectfully solicited.

Reconsideration and an early allowance are respectfully solicited.

Respectfully submitted,



Marina V. Schneller  
Registration No. 26,032  
VENABLE LLP  
Post Office Box 34385  
Washington, D.C. 20043-9998  
Telephone: (202) 344-4062  
Facsimile: (202) 344-8300



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present invention

photocatalyst layer  
adhesive layer; comprising a silane coupler  
base film  
metalic base plate or resin base

→ effect: page 7, last paragraph

laminating by heat-pressing →  
effect: page 2, last paragraph  
: page 3, paragraphs 1-3  
: page 16, lines 11-16  
: page 38

US 6,228,480  
(WO97-134)

column 15, lines 44-46  
column 37, lines 12-15

photocatalyst layer; may be added a silane coupler  
adhesive layer  
carrier

laminating  
→  
photocatalyst layer  
adhesive layer  
carrier  
sticker  
detachable polypropylene film

laminating

→  
photocatalyst layer  
adhesive layer  
carrier  
sticker  
glass